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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/176,639	10/20/98	SCHEDIWY	R 20864.00600

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EXAMINER

KUMAR, S

ART UNIT

PAPER NUMBER

2775

DATE MAILED:

03/01/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/176,639

Applicant(s)

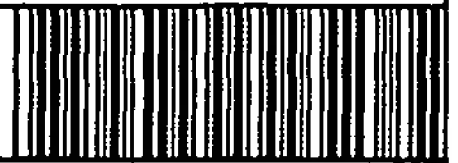
Schedlwy et al.

Examiner

Srllakshmi Kumar

Group Art Unit

2775



☐ Responsive to communication(s) filed on _____

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1-12 is/are pending in the application

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-12 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 6, 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grabner et al (U.S. 4, 731,694).

As to independent claim 1, Grabner et al disclose a touch pad module comprising sensor, insulative and conductive layers as shown in Col. 3, lines 20-22, 31-61 and Col. 4, lines 26-30. Grabner et al discuss where the sensor layer is Fig. 1, items 7 and 8, and where the insulative layer is Fig. 1, item 24. In a special embodiment of the touch pad, the insulative layer 24 also comprises a metalized layer as a conductor on upper flat surface. It would have been obvious that this extra layer shows the three layers of the touch pad with the sensor layer on the bottom, the insulative layer on top of the sensor layer and the conductive layer on top of the insulative layer. This order could be advantageous as to have better touch detection.

As to dependent claim 2, claim 1 and further comprising where the sensor layer comprises a capacitive touch pad comprising rows of electrodes as shown by Grabner et al in Fig. 1, items 14, 15 and a dielectric layer Fig. 1, item 6 and is discussed in Col. 3, lines 31-42.

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As to dependent claim 6, claim 1 and further comprising where the conductive layer is transparent. Grabner et al disclose different materials used in the touch pad as shown in Col. 4, lines 15-29, and where a plastic covering, Fig. 1, item 24, is present. It would have been obvious to one skilled in the art that different types of materials with different properties could be used.

As to dependent claim 10, claim 1 and further comprising where the conductive layer comprises a sheet of plastic as shown in Col. 3, lines 50-61. Grabner et al fail to disclose that sheet of plastic is embedded with conductive carbon. It would have been obvious to one skilled in the art that this feature of conductive carbon can be incorporated into the sheet of plastic. This carbon provides better conductive properties.

As to dependent claim 11, claim 1 and further comprising where the signal can be registered by the way of pressure or resistance as shown in Col. 3, line 68-Col. 4, line 3. Grabner et al fail to disclose whether the capacitance generated is equal when either a finger or a stylus is used. It would have been obvious to one skilled in the art that the touch pad would have been able to generate enough capacitance in order for the touch pad to perform. The feature of equal capacitance would allow the touch pad to generate the same output regardless of the instrument used by the user.

As to dependent claim 12, claim 1 and further comprising where a bezel is located over the conductive layer to prevent contact of that portion of the touch panel. Although Grabner et al do not disclose this feature, it would have been obvious to one skilled in the art that this feature

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could have been easily incorporated into the system. The bezel would enable certain areas of the touch panel, such as the edges of the sensors, to be off limits to the user.

3. Claims 3-5, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grabner et al as view of Friend et al (U.S. 5,455,901).

As to dependent claim 3, claim 2 and further comprising where the conductive object comprises either a finger of a user or a stylus. Where Grabner et al fail to disclose the conductive object, Friend et al disclose in Col. 5, lines 28-34. It would have been obvious to one skilled in the art that this feature of a stylus could have been easily incorporated into the Grabner et al system as it would have been needed as a means for input for the user.

As to dependent claim 4, claim 1 and further comprising where the conductive layer is deformable to the conductive object that results in a visible trail being created on the surface of the conductive layer. Where Grabner et al fail to disclose, Friend et al teach in Col. 1, lines 41-54. It would have been obvious to one skilled in the art that this feature would have been present in the Grabner et al system as the visible trail left by the conductive object shows the written input by the user.

As to dependent claim 5, claim 4 and further comprising where the visible trail is erasable. Where Grabner et al fail to teach, Friend et al teach in Col. 1, lines 55-63 where the handwritten input is erasable when an "x" is placed over it. It would have been obvious to one skilled in the art that this feature could have been easily incorporated into the Grabner et al system as it allows the user to make corrections without exiting from the system.

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As to dependent claim 8, claim 3 and further comprising where the touch pad can distinguish finger and stylus contact. Grabner et al and Friend et al do not disclose the means for distinguishing. It would have been obvious to one skilled in the art that this feature is present in each system as the stylus and finger create different inputs. This feature is advantageous as the systems would be able to distinguish between written inputs from the stylus and selections made by fingers.

4. Claims 7, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grabner et al in view of Okamoto et al (U.S. 5,502,461).

As to dependent claim 7, claim 6 and further comprising where a layer of liquid crystal is present. Where Grabner et al fail to teach, Okamoto et al teach in Col. 4, lines 51-58 a liquid crystal display panel which is used in input and output. It would have been obvious to one skilled in the art that this feature of liquid crystal could have been incorporated into the Grabner et al system. The liquid crystal display is advantageous as it provides clearer resolution.

As to dependent claim 9, claim 1 and further comprising where the resistance of the input made by the stylus is suitable to measure position. Where Grabner et al fail to disclose the position data of an input, Okamoto et al teach in Col. 5, lines 6-13, Col. 6, lines 3-13. Okamoto et al teach the feature of an input control portion which measures the coordinate data of the handwriting input. It would have been obvious to one skilled in the art that this feature could have been incorporated into the Grabner et al system. This feature is advantageous as it allows the user to be aware of where a new input can be made.

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Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Fukunaga et al (U.S. 4,641,354) disclose an apparatus for recognizing and displaying handwritten characters and figures in which input stroke information on handwritten input character.

Hawkins et al (U.S. 5,133,076) disclose a hand held computer of a type used for taking inventory, recording signatures on delivery and keeping a route agenda.

Crooks et al (U.S. 5,587,560) disclose a system for capturing handwritten data.

Root et al (U.S. 5,600,781) disclose a method and apparatus for creating a portable personalized operating environment with a touch screen and stylus.

Ditzik (U.S. 5,983,073) discloses a personal digital assistant with a touch screen and stylus.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

Art Unit:

(703) 308-6606 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

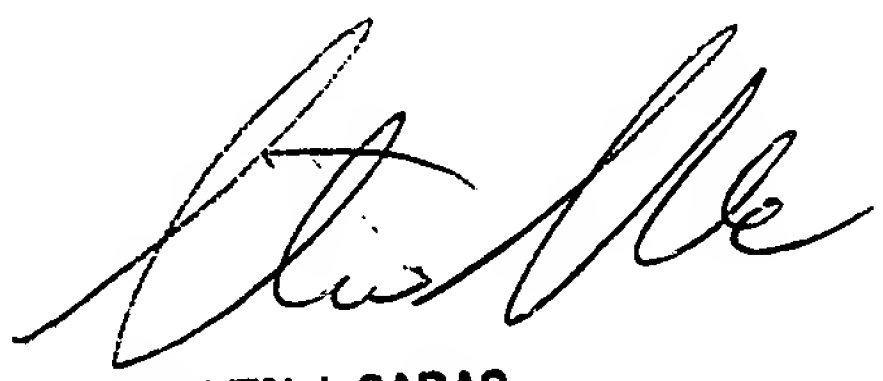
Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA., Sixth Floor (Receptionist).

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Srilakshmi Kumar** whose telephone number is (703) 306-5575. The examiner can normally be reached on Mondays through Fridays from 7:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Saras, can be reached on (703) 305-9720. The fax number is (703) 308-6606.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3800.

February 24, 2000



STEVEN J. SARAS
SUPERVISORY PATENT EXAMINER
GROUP 2700